

What is claimed is:

5 1. A process for incorporating an ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer into an emulsion polymer, comprising:

10 (A) adding about 0.2 to about 60 weight percent, based on the total monomers, of a lipophilic amine salt of said ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer to a latex formulation of at least one polymerizable monomer, which latex formulation comprises

15 (a) at least one substantially water-insoluble lipophilic monomer other than said lipophilic amine salt,

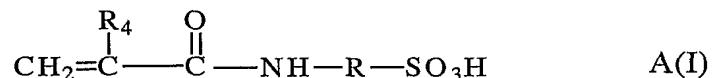
 (b) water, and

15 (c) a polymerization initiator; and

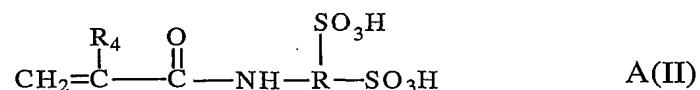
 (B) polymerizing the monomers in the latex formulation.

20 2. The process of claim 1 wherein the ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer comprises an unsaturated hydrocarbylamidoalkanesulfonic acid.

25 3. The process of claim 1 where the ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer is selected from the group consisting of acrylamidosulfonic acids and methacrylamidosulfonic acids represented by the formulas:



and

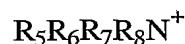


30 wherein R_4 is a hydrogen or a methyl group and R is an aliphatic or aromatic hydrocarbon group.

4. The process of Claim 1 where the ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer comprises 2-acrylamido-2-methylpropanesulfonic acid.

5 5. The process of claim 1 where the ethylenically unsaturated water-soluble polymerizable sulfonic acid is selected from the group consisting of styrenic sulfonic acid and substituted styrene sulfonic acids.

10 6. The process of claim 1 wherein the lipophilic amine comprises a material represented, in its cationic form, by:



where R_5 , R_6 , R_7 , and R_8 are independently hydrogen or hydrocarbyl groups, provided that at least one of R_5 , R_6 , R_7 and R_8 is a hydrocarbyl group.

15 7 The process of claim 6 wherein the total number of carbon atoms in R_5 , R_6 , R_7 and R_8 is about 6 to about 36.

20 8. The process of Claim 1 where the lipophilic amine comprises N,N-dimethyl-n-dodecyl amine.

25 9. The process of claim 1 where said ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer comprises 2-acrylamido-2-methylpropanesulfonic acid and the lipophilic amine comprises N,N-dimethyl-n-dodecyl amine.

25 10. The process of claim 1 wherein the latex formulation further comprises at least one component selected from the group consisting of surfactants, chain transfer agents, and buffers.

30 11. The process of claim 1 wherein the latex formulation further comprises an ethylenically unsaturated water-soluble polymerizable non-ionic monomer.

35 12. The process of claim 11 wherein the ethylenically unsaturated water-soluble polymerizable sulfonic acid comprises 2-acrylamido-2-methylpropanesulfonic acid, the lipophilic amine comprises N,N-dimethyl-n-dodecyl

amine and wherein the ethylenically unsaturated water-soluble polymerizable non-ionic monomer is present and comprises acrylamide.

13. The process of claim 1 wherein the amount of the lipophilic amine
5 salt is about 0.5 to about 40 weight percent

14. The process of claim 1 wherein the polymerization is effected by heating the latex formulation to a temperature of about 30°C to about 90°C.

10 15. An adhesive, coating, ink, filler, or caulk composition comprising the product of the process of claim 1.

15 16. An adhesive, coating, ink, filler, or caulk composition comprising an emulsion polymer comprising a lipophilic amine salt of an ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer moiety.

17. The composition of claim 16 further comprising a resin binder.

20 18. The composition of claim 17 wherein said resin binder comprises a phenol formaldehyde resin, a urea formaldehyde resin, a melamine formaldehyde resin, or combinations thereof.

19. The composition of claim 16 further comprising an organic solvent or water or a mixture thereof.

25 20. A process for incorporating an ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer into an organic solvent-soluble polymer, comprising

30 (A) adding about 0.2 to about 60 weight percent, based on the total monomers, of a lipophilic amine salt of said ethylenically unsaturated water-soluble polymerizable sulfonic acid monomer to a formulation which comprises

(a) a liquid medium selected from the group consisting of (i) organic solvents and (ii) lipophilic monomers other than said lipophilic amine salt, and (iii) mixtures thereof, and

35 (b) a polymerization initiator; and

(B) polymerizing the monomers in said formulation.

21. The process of claim 20 where the ethylenically unsaturated water-soluble polymerizable sulfonic acid comprises 2-acrylamido-2-methylpropanesulfonic acid and the lipophilic amine comprises N,N-dimethyl-n-dodecyl amine.

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22. The process of claim 20 wherein the liquid medium comprises an organic solvent.

23. The process of claim 20 wherein the liquid medium comprises a 10 lipophilic monomer.

24. The process of claim 20 wherein the formulation further comprises a chain transfer agent.

15 25. An adhesive, coating, ink, filler, or caulk composition comprising the product of the process of claim 20.